

I CLAIM AS MY INVENTION:

1. A method for driving laser diodes arranged in close proximity to one another in a laser recording device, comprising the steps of:

charging each laser diode by a driver current that determines a light power output by the laser diode;

with the driver currents, controlling video signals modulated with information to be recorded;

connecting a correction unit between a first laser diode forming a crosstalk source and a second laser diode forming a crosstalk sink;

controlling the correction unit with the video signal or the driver current of the first laser diode;

employing an output signal of the correction unit as a correction signal for the video signal or for the driver current of the second laser diode ; and

determining a transfer function of the correction unit such that an optimum compensation of crosstalk is achieved between the laser diodes.

2. The method according to claim 1, for determining the transfer function of the correction unit wherein

a the time curve of a temperature of the second laser diode forming the crosstalk sink that arises as a consequence of the crosstalk is determined; and

the identified time curve of the temperature is approximately electrically simulated by the correction unit as the transfer function.

3. The method according to claim 1, wherein for determining the transfer function of the correction unit

a time curve of a light power of the second laser diode forming the crosstalk sink that arises as a consequence of the crosstalk is determined; and

the identified time curve of the light power is approximately electrically simulated by the correction unit as the transfer function.

4. The method according to claim 1 wherein for determining a time curve of a temperature or of a light power

turning on and off the first laser diode forming the crosstalk source by a driver current pulse;

operating the second laser diode forming the crosstalk sink in continuous mode by a constant driver current;

measuring the time curve of the temperature or of the light power of the second laser diode dependent on the time as a first function; and

the time curve of the driver current of the second laser diode is determined from the first function and a second function that reproduces the curve of the light power of the second laser diode dependent on the driver current.

5. The method according to claim 1 wherein the connection unit is electrically realized by a linear low-pass filter having at least one RC element.

6. The method according to claim 1 wherein the laser diodes forming the crosstalk sinks are those laser diodes that at least immediately neighbor the laser diode forming the crosstalk source.

7. The method according to claim 1 wherein
a correction unit is allocated to every crosstalk sink to be taken into consideration for a crosstalk source;
transfer functions of the correction units are formed from characteristic time curves of a temperature or light power in the respective crosstalk sinks;
the correction units are charged with the driver current of the laser diode forming the crosstalk source; and
output signals of the quadripoles are respectively employed as correction signals for the video signals or the driver currents of the laser diodes forming the crosstalk sinks.

8. The method according to claim 1 wherein the driver currents for the laser diodes are generated in current sources that are controlled by the video signals and the correction signals.

9. A circuit arrangement for driving laser diodes arranged in close proximity to one another in a laser recording device, comprising:

generators controlled by video signals for generating driver currents for the laser diodes that determine light powers output by the laser diodes;

correction units for generating correction signals for compensation of crosstalk between the laser diodes;

the correction units dependent on the video signals or driver currents for the laser diodes, approximately electrically simulating time curves of the temperatures or light powers of the individual laser diodes arising as a consequence of the crosstalk; and

outputs of the correction units are connected to the generators in order to correct the video signals or driver currents with the correction signals.

10. The circuit arrangement according to claim 9 wherein the generators are current sources driven by the video signals.

generators controlled by video signals for generating driver currents for the laser diodes that determine light powers output by the laser diodes;

correction units for generating correction signals for compensation of crosstalk between the laser diodes;

the correction units dependent on at least one of the video signals and driver currents, approximately electrically simulating time curves of at least one of the temperatures and light powers of the individual laser diodes arising as a consequence of the crosstalk;

the correction units are connected with at least one of the video signals and the driver currents for the laser diodes; and

outputs of the correction units are connected to the generators in order to correct at least one of the video signals and the driver currents with the correction signals.